ERIC Document Resume	See Instruction Sheet	DATE OF RESUME 6/23/65	DATE RECEIVED

A. PUBLICATION DATA

ED NUMBER	2. ORIGINATOR CONTROL NO(S).	3. IDENTIFICATION NO.	DO NOT WRITE IN SPACE BELOW
ED000127	7465	N.A.	

4. AUTHOR(S):
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5. TITLE OF DOCUMENT ABSTRACTED:
A Study to Predict Teacher Effectiveness by Discovering Students' Reactions to a Situations Test Constructed Specifically for Elementary Education Students at the Pennsylvania State College

6. PUBLICATION TITLE:
Penn State Review of Educational Research

7. EDITOR(S):
N.A.

8. PLACE OF ORIGIN
ORG. Penn State Univ.
ST. University Park,
CITY, STATE Pa.
TELE. EXT.
INST/LOC CODE

9. PUBLISHER OR SOURCE
Penn State University

10. VOL.	11. PAGES	12. MO./YR.	13. TOTAL PP.
V	65-68	Mar. 54	4

MICROFILM COPY AVAILABLE YES ☒ NO ☐

COPYRIGHT GRANTED YES ☐ NO ☒

COPYRIGHT RELEASE FILED YES ☐ NO ☐

TYPE OF REPORT
PROPOSAL ☐
IN-PROGRESS ☐
FINAL ☒
FOLLOW-UP ☐

OTHER ERIC REFERENCES:

ERIC SATELLITE CODE

B. INDEXING DATA

14. SUBJECT AREA

15. TYPE OF ENDEAVOR abstract of doctoral dissertation and experimental study

16. INDEXING TERMS (8-12)

abstracts	teacher edu.	measurement	aptitudes
experimental studies	effectiveness	test construction	
professional edu.	students	evaluation	
		elementary edu.	

17. ABSTRACT (MAX. 250 WORDS)

A project designed to develop and administer a new evaluation instrument for further description of the elementary education student. The instrument developed was a situations test called "Evidence of Teacher Opinion," containing 28 situations describing elementary school problems. Five answers were rated from best to worst.

Participants in the study included 87 cooperating teachers who had worked with elementary education students during 1952–54 (key group); undergraduate groups consisting of elementary education majors—97 freshmen, 98 sophomores, 99 juniors, and 87 seniors; and 34 first-year teaching graduates of the elementary education program. A total of 502 tests were administered. Modal and median answers were found for each of the five answers of the 28 situations for all of the groups. Means, standard deviations, and t's of the significance of differences between mean scores were found.

Implications of the findings: The evidence indicates that aptitude toward teaching can be measured and can be made a more objective procedure.

ERIC No.

18. SOURCE OF ABSTRACT

C. FUNDING DATA

19. SUPPORTING ORGANIZATION	20. DIVISION OR DEPT.	21. CONTRACT NO. / PROJECT NO.
	22. TOTAL COST OF PROJECT	
	23. DURATION OF PROJECT	U.S. Department of Health, Education, and Welfare Office of Education

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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A STUDY TO PREDICT TEACHER EFFECTIVENESS BY DISCOVERING STUDENTS' REACTIONS TO A SITUATIONS TEST CONSTRUCTED SPECIFICALLY FOR ELEMENTARY EDUCATION STUDENTS AT THE PENNSYLVANIA STATE COLLEGE

- Byron J. White -

Introduction

The Elementary Education Committee of the Department of Education at the Pennsylvania State University was interested in improving its program of training elementary teachers. One of the tasks was to identify sources of evidence that could be used in observing behavior.

Problem

The purpose of this investigation was to develop and administer a new evaluation instrument for further description of the elementay education student. The instrument developed was a situations test called: Evidence of Teacher Opinion. It contained 28 situations describing elementary school problems. Five answers were rated from best to worst.

Procedure

Eighty-seven cooperating teachers, who had worked with elementary education students during the year of 1952-1953 were used as the key group. The undergraduate groups used were elementary education majors. There were: 97 freshmen, 98 sophomores, 99 juniors, and 87 seniors. There were 34 first-year teaching graduates of the elementary education program used. A total of 502 tests were used in the study. Modal and median answers were found for each of the five answers of the 28 situations for all of the groups. Means, standard deviations, and t's of the significance of differences between mean scores were found.

t's were calculated in a group-to-group progression scheme. They were found between freshmen and sophomores, sophomores and juniors, juniors and seniors, seniors and first-year graduates, and first-year graduates and cooperating teachers. Also t's were calculated between the higher means of the novice group, freshmen and sophomores, and the upper-class group, juniors and seniors; the novice group and the first-year graduate and cooperating teacher groups. They were also found between the upper-class group, and the first-year graduate and cooperating teacher groups. It was felt that the comparisons involving the novice, upper-class, and cooperating teacher groups were much more meaningful and were used accordingly. It was considered that the results of the first-year graduate group's tests should be examined carefully because of the discrepancy in the size of that group in relation to the sizes of the other groups used in the investigation.

Each item was evaluated in terms of its discriminating tendencies, and its degree of concurrence with the attitudes of practicing teachers. Each item was examined to discover strengths and weaknesses in the Pennsylvania State University program for prospective elementary teachers. The total scores of the test by groups were examined for the same qualities that were sought in the individual item examination.

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The split-half technique was applied to the odd and even item scores of the cooperating teachers to establish reliability.

Limitations

Since the job attitude test was specifically structured for elementary education students at the Pennsylvania State University, the conclusions drawn are likewise specifically related to the Pennsylvania State University.

Results

Eight situations showed excellent discriminatory tendencies because of the existence of a quantity of significant differences in the right direction. The upper-class group significantly outscored the novice group on all of these items. The cooperating teachers outscored the upper-class group on the eight items, and significantly so on seven.

Thirteen situations can be classed as good or borderline because these items did not show as much consistency and strength in their ability to discriminate as did the items rated as excellent. Based on the size and number of significant differences in the right direction, and with a sparsity of differences in the wrong direction, ten items of these were rated as good. The upper-class group outscored the novice group on seven of the ten items, and significantly so on five of them. The cooperating teachers significantly outscored the upper-class group on four of these items. Based on the size and number of significant differences in the right direction, and the existence of some differences in the wrong direction, three situations were classified as borderline. The upper-class group significantly outscored the novice group on one item, with the novice group significantly ourscoring on the remaining two. The cooperating teachers significantly outscored the novice and upper-class groups on two situations and were significantly outscored on the third.

There were seven situations that were classified as doubtful. The upper-class group outscored the novice group in three of these situations and significantly so in one. The key group outscored the novice group in two of these situations with one being significant. The key group outscored the upper-class group in three situations, two of these significantly.

The discriminatory aspects of the test, Evidence of Teacher Opinion, are very much in evidence when the total scores of the six groups are analyzed. Every mean difference is in the right direction. All of the differences are significant at the one per cent level, except in three comparisons of less importance. Significant differences at the one per cent level are found between the novice group, and the upper-class, first-year graduate, and key groups. Significant differences at the one per cent level are found between the upper-class group, and the first-year graduate, and key teacher groups. A significant difference at the one per cent level was found between the first-year graduate and key groups.

Each situation was also analyzed with the intent to discover strengths and weaknesses in the Pennsylvania State University program for elementary education students. There are fifteen areas in the program which show strength as measured by the results in relation to a particular item. It was assumed that there was

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strength, as measured by a particular item for this purpose, when the upper-class group showed itself to be significantly superior to the novice group.

These strength areas are shown in the following:

1. The problem of a new teacher working with colleagues on a personally recognized inadequacy in the school program.
2. The problem of a teacher handling an accusation about his work with a retarded child who is the son of the President of the Board of Education.
3. The qualities that primary children like in teachers.
4. The problem of sorting opportunities for children in oral expression.
5. The problem of selecting points of emphasis in a first grade reading program.
6. The problem of selecting experiences for children in written expression.
7. The problem of selecting important considerations in a communication arts program.
8. The problem of selecting methods for teaching a unit.
9. The problem of deciding about the scope, content, and emphasis in a first grade arithmetic program.
10. The problem of selecting teaching procedures for elementary science.
11. The problem of school-parent relations.
12. The problem of working with the parents in relation to sleep and rest, and nutrition for a child.
13. The problem of working with the abnormally unresponsive child.
14. The problem of teaching cooperative effort coupled with a control problem.
15. The problem of helping a group learn better group-play techniques.

There are six areas in the program which show weakness, as measured by the results, in relation to a particular item. It was assumed that there was weakness as measured by a particular item for this purpose when the novice group showed itself to be significantly superior to the upper-class group.

These weakness areas are shown in the following:

1. The problem of a teacher's relations with his superior.
2. The problem of coping with members of the community when a colleague is being discussed.

3. The problem of implementing certain teaching techniques and materials.

4. The roles the teacher plays in the minds of the children.

5. The problem of working with a gifted child who lacks security and social maturity.

6. The problem of working with the slow child.

The remaining seven items that were previously classified as doubtful are too inconsistent to warrant discussion.

Conclusions

The conclusions are presented in the following paragraphs. They are limited by the measured results as indicated and refer to the sample used in relation to the program of elementary education at the Pennsylvania State University.

1. The test has reasonable utility in terms of convenience and facility of handling.

2. It can be interpreted readily by comparing new scores to mean scores and standard deviations already established.

3. The results of the study show that the test, Evidence of Teacher Opinion, can be added to the evaluation program for elementary education students at the Pennsylvania State University.

4. The measure developed is a fair appraisal instrument of the program in teacher evaluation.

Implications

The evidence indicates that aptitude toward teaching can be measured and can be made a more objective procedure.

Recommendations for Further Research

1. There is a need to develop a second form of this instrument for reliability purposes that can be used in a test--re-test pattern.

2. It is a firm belief of the author that a particular college or university program of training in a definite area is unique. Therefore, there is a need for the development of evaluation instruments which are to be specifically applied to the program of training from which the data is originally derived.